A True and Particular

ACCOUNT

Of a STORM of

Thunder & Lightning,

WHICH

Fell at *Richmond* in *Surrey*, on *Whit-Sunday* last in the Afternoon, being *May* 20th, 1711.

WITH

An exact Deſcription, on a Copper-plate, of the Hurt done by it, both to the Perſons of the Kill'd and Wounded, and the Building on which it fell.

Whereunto are added

Some ſhort Hints concerning the Nature, Cauſes, and Effects of *Thunder* and *Lightning*; and ſome Practical Reflections upon the Whole.

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BRITISH MUSEUM

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Fell at *Richmond* in *Surrey*, on *Whit-Sunday* laſt in the After-noon, being *May* the 20th, 1711, *&c.*

THO' by our Natural Situation, the Soil and Air, *&c.* of this happy Iſland, we of *Great-Britain* enjoy as many of the moſt Valuable Bleſſings of Nature as any of our Neighbours, without ſuffering from thoſe violent Heats and Colds, and their Natural Conſequences, which affect thoſe Countries which are nearer or more remote from the *Line* than we are, to any conſiderable de-

gree; yet conſidering the infinite diverſities of Natural Bodies, which are lodg'd in and near the ſurface of our Earth, the contrariety of ſome of their Principles to each other, and to the Mechaniſm and Conſtitution of our Bodies, and what vaſt quantities of thoſe Principles are rais'd up into the Air by the Sun in our hotteſt Summer-Months, when he is in or near his greateſt Northern Declination; conſidering farther, when theſe Principles combine or act upon each other in the Air, how many ways they may do us Miſchief, either by producing Peſtilences, Blights, *&c.* or by generating Storms and Hurricanes; or by diſcharging themſelves in violent *Lightnings* and *Thunders*, according to their reſpective Natures; it is not to be wonder'd, if we ſometimes feel the effects of their Fury in ſome meaſure, as well as other Countries more unhappily Situated, ſuffer from them the greateſt Deſolations and Ravages.

Thunder and *Lightning*, one late diſmal Effect of which the ſequel will acquaint the Reader with, tho' they may not have made ſo great Deſolations, have certainly more frequently done Miſchief in this Iſland than either Peſtilence, or Hurricanes, or Earth-quakes, as any one may ſee who will con-

conſult our Chronicles upon theſe Subjects, as far backward from this time as they are to be depended upon. There is ſcarce a Year paſſes in which they do us not ſome Miſchief; and tho' all thoſe Miſchiefs are not Recorded, with the times and Places when and where done, and ſuch Obſervations as might contribute to our better Underſtanding of theſe truly terrible *Phænomena*, yet a great many we have upon Record, and ſeveral of them very ſtrange and Surprizing: No longer ago than *May* the 10th, 1666, Dr. *Wallis* tells us of a Thunderſtorm, in which two *Oxford* Scholars in a Boat upon the *Thames*, were ſtruck, the one of 'em ſtark Dead, the other out of the Boat into the Mud with his Feet downwards, his Body for a time benumm'd, and himſelf Senſeleſs. There is another Account in the *Philoſophical Tranſactions*, from whence I have the former, of the ſhattering of a School-Houſe near *Aberdeen*, by a flaſh of Lightning, in which were ſixteen Perſons, four Kill'd, and many of the reſt hurt; this happen'd on *July* the 24th, 1696. Dr. *Wallis* gives us another Account of Four Perſons kill'd in a Field in *Northamptonſhire*, by Lightning, *July* 27, 1691. And Mr. *Thoresby* relates two very diſmal Effects of Lightning, which happen'd in *Yorkſhire*, in 1698, and 1709. And innumerable others

thers might be nam'd, would they not take up too much room in this Place.

What is the true Natural Cauſe of *Lightning* and *Thunder*, is not yet throughly agreed among the Philoſophers; tho' Dr. *Wallis*, and Sir *Iſaac Newton*, ſeem to bid faireſt to give us a Rational Account of it. Dr. *Wallis* obſerves in the *Philoſophical Tranſactions*, Numb. 231. "That *Thunder* and "*Lightning* are ſo very like the Effects of "fired *Gun-powder*, that we may reaſonably conclude them to proceed from like "Cauſes. Now, the principal Ingredients "in *Gun-powder* are *Nitre* and *Sulphur*, (the "mixture of *Char-coal* being chiefly to keep "the Parts ſeparate, for the better kindling "of it.) So that if we ſuppoſe in the Air "a convenient mixture of *Nitrous* and *Sulphurous* Vapours, and thoſe by Accident "to take fire, ſuch *Exploſion* may well follow, with ſuch Noiſe and Light as in "the firing of *Gun-powder*; and being once "kindled, it will run from Place to Place, "as the Vapour leads it, with like Effect". And whereas, in the firing of *Gun-powder*, the Flaſh and the Report go off both together, but at diſtances, the *Flaſh* is ſeen before the *Report* is heard; it is the ſame in *Thunder* and *Lightning*, the *Lightning* being ſeen before the *Thunder* is heard, in proportion

tion to the distance of the Place where the Matter is fir'd, which the more remote from us, the less Damage is done, the nearer to us the more. And whereas in every one of these Explosions, the *Lightning* spends it self in an Instant, but the noise of the *Thunder* continues a considerable time; this may be attributed to the two different ways by which *Light* and *Sound* are propagated, which I have not room to enlarge upon in this Place: Besides that, the same may be daily observ'd in the firing off of Great Guns, where the *Flash* vanishes in a Moment, but the Report continues a considerable time; the undulating Motion in the Air which occasions it continuing, and being reflected to and fro by the neighbouring Hills, and Buildings, more or less, according to the Situation of the Place where the Gun is fir'd off.

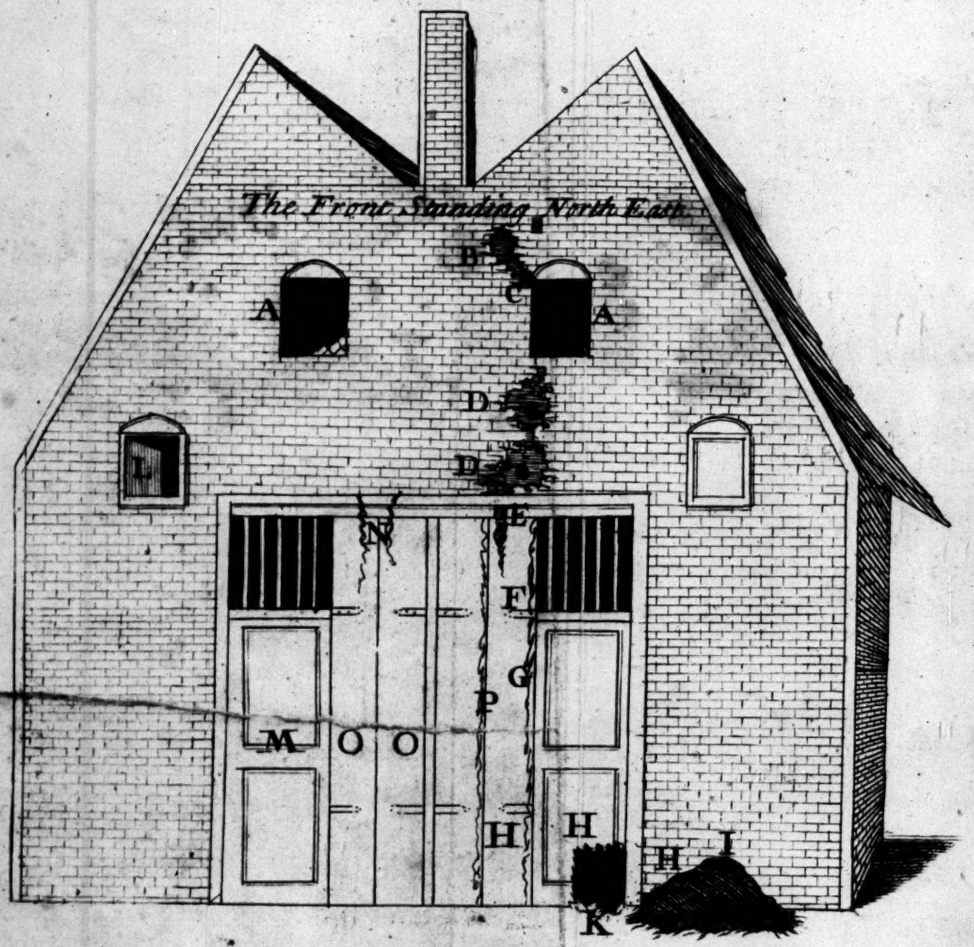
Sir *Isaac Newton* gives us much the same Account of the Nature and Causes of *Thunder* and *Lightning*, as Dr. *Wallis*, *viz.* In his Latin *Optics*, p. 326. It being his Opinion, that *Thunder* is not occasion'd by the falling of one Cloud upon another, according to the Opinion of the *Cartesians*, but the setting on fire of *Sulphurous* Exhalations, which in dry Seasons ascend into the Air, and ferment there with *Nitrous* Acids, and taking fire,

occasion

occaſion *Thunder* and *Lightning*, and other fiery Meteors. So that we may juſtly look upon *Lightning* and *Thunder* to be the effects of the firing of a kind of Natural *Gun-powder*, which according to its quantity and ſtrength, and nearneſs to the Earth, has the ſame Effects which artificial Gun-powder has, committing like Ravages with it, and killing Men or Cattle, ſplitting Trees, and breaking Houſes, *&c.* as they happen to be in its way. If the *Thunder* and *Lightning* come very near together, it ſeldom fails but there is ſome Damage done; if the *Lightning* is ſeen a conſiderable time before the *Thunder* is heard, 'tis a ſign that that Place where the Exhalations are fir'd off, is at a conſiderable diſtance, and that no Harm need be fear'd from the Lightning at that time.

The enſuing Letter, writ by a Perſon of Integrity, who was almoſt in the midſt of it, and a conſiderable ſufferer by it, gives us one diſmal Inſtance of the Effects of a terrible flaſh of *Lightning*, which was follow'd by an exceſſively loud *Thunder-clap* in almoſt the ſame moment of Time. The Account he gives us is very particular and diſtinct, and may may be abſolutely depended upon in every branch of it.

Richmond


The Front Standing North East
A
B
C
A
D
D
E
F
G
P
M
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O
H
H
H
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K

A
B
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B
The Inside of the Back part wch Stands South west
G
D
E
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I

Richmond, May 21ſt. 1711.

SIR,

THere happning Yeſterday in the Afternoon at this Place, an Accident by Thunder and Lightning very Surprizing, and very Terrible, eſpecially to thoſe that were neareſt to it, I cannot forbear ſending you a particular Account of the Effects thereof as well as I can, becauſe I know your Genius leads you to be Curious and Inquiſitive, eſpecially into uncommon Events.

At above half an Hour paſt Three of the Clock, when it had ſometime before Thundered and Lightened at a diſtance, which was attended with Rain and a pretty high Wind, on a ſudden there came a violent Clap, which fell upon a Brick-Building, diſtinct from any Houſe, conſiſting of two Stables, and two Coach-Houſes, over which were Hay-lofts and Rooms for Servants to lie in; I have ſent you a Draught of the Front, and of the Inſide of the back part of the Building, that thereby this Account may be rendred the more Intelligible to you.

The Lightning and clap of Thunder came all at once, there being not any ſpace of Time betwixt the one and the other, as is uſual when at a greater diſtance, but to me it reſembled the diſcharge of a Cannon, when a Perſon ſtands very near it.

I ſhall firſt give an Account of the Effects of this Storm upon the Front of this Building, which is to the North-Eaſt; and Firſt,

The Glaſs Windows at *A. A.* were broken, ſhatter'd, and burſt outwards.

At *B*, the Brick-work was broken and pierced, but not through, except one little Hole.

Where *C* points, the corner of the Window-Frame was ſtruck through, as if 'twas done by a ſmall Cannon-Ball, and ſhivered to pieces.

D and *D*, ſhew you two more places in the Brick-work broken, and two ſmall Holes quite through; at the lowermoſt of which, within, the Bricks were more torn than without, and thrown all over the Room.

E,

E, repreſents the black Mark of the Sulphur, which fixed itſelf on the Beam and one of the Coach-houſe Doors.

There were three Young Men, Apprentices to Water-men at *Twittenham*, who coming by at the time of the Storm, ſtood up under this Building for Shelter; one of them was found Dead upon the ſpot, with the Coach-houſe Door upon him; but whether that or the Lightning was the occaſion of his Death, is uncertain; 'tis ſuppos'd the Latter, becauſe he bled at one Ear; the Hair of the back part of his Head and of his Beard was ſinged, and the Blood ſettled round his Neck.

The other two young Men were both wounded by the Lightning on one ſide of the Belly, and down one Thigh. One of them crawl'd away and got immediate help, and is likely to do well; but the other was found gaſping for Life on the Dung-hill, but was ſomewhat recover'd by being let Blood, *&c.* However he is not likely to Live.

The Coach-houſe Door at *F*, was thrown down on the Boy.

G, ſhews the poſt of that Door ſplit in the middle by the Lightning, from the top to the Bottom.

At the Places marked by *H H H*, the three Young Men ſtood for Shelter.

At *I*, is the Dung-hill, on which one of them was found lying.

If you caſt your Eye upon *K*, you will ſee a corner of the Stable-Door taken off by the Lightning, with a piece of the Ground-ſell and the pitch'd Stones looſen'd, and one of them ſplit.

L, The Hay-loft Door, which was bolted with a ſtrong Bolt, was burſt open, and the Staple flung two Yards into the Room.

There was an Horſe ſtood in the Stable at *M*, which was kill'd by the Lightning.

On each ſide of *N*, were two marks of ſmall ſtreaks of *Sulphur*, and the Coach-houſe Door a little razed thereby.

O O, Coach-houſe Doors.

At *P*, there was a Splinter rent off the Door from the Top to the Bottom.

So much Sir, for the Front. I ſhall now give you a Deſcription of the Damage done to the back part of this Building, which ſtands to the South-Weſt, where the Wind then blew. This I will make as ſhort as I can.

The chief Blow fell on the South-Weſt part of this Building, which ript off the Tiles, as appears by *A A*, and threw down two

two rows of Brick-work at the Gable-end without-ſide, as is deſcribed by *B B*.

At *C*, is ſuppoſed to be the Place where the Lightning ſtruck in upon the Horſe and Kill'd him. He diſcharg'd a great deal of Blood at the right Ear; his Main was ſinged, and all the Right ſide of his Body in Streaks, chiefly upon his Veins.

This Lightning diſcharg'd itſelf again with great violence at a Back-window markd *D*, which blew out the Glaſs and half the Bar, and ſplit in ſunder the lower part of the Frame at *E*, which was Heart of Oak, and threw all into the Field. In this Place were two young Geeſe, which were not hurt at all.

F, The Stall the Horſe ſtood in.

The Brick-wall was alſo here broken without-ſide, over this Window, but not through, as *G* ſhews you.

H, a Sty with two Pigs in it, one only of which was Kill'd, tho' it was not above ſix Foot ſquare.

I, A Stable, in which was an Horſe, but not hurt.

K, the Back-ſtable Door where the Horſe was Kill'd.

I was told by a Perſon who ſaw the Cloud break, that it reſembled the Mouth of a heated Oven.

Another

Another Perſon, who ſaw the Lightning fall on the Gable-end, inform'd me, that there immediately aroſe a great Smoak; but tho' there was much combuſtible Matter within-ſide, yet, God be praiſed, there was not any thing took Fire: But there was a ſtrong ſmell of Sulphur left behind, which laſted all this Day.

Thus, Sir, I have deſcribed according to my Capacity, this ſurprizing Caſualty; and I leave it to you to make what Uſe you pleaſe of it. If I have been too Minute, or if I have taken notice of any thing that may ſeem Trifling, I entreat you to Pardon it; You may be ſure I was affected, as being ſo near the Danger. I deſire heartily to be Thankful to Amighty God, not only for my own Preſervation, but for that of the whole Family in which I was at that time.

I am, &c.

POSTSCRIPT.

I Have juſt now received Information, that when the Horſe was Flea'd, his Head appear'd to be ſplit from his Crown to his Noſe, in as exact a manner as if it had been done by the greateſt Artiſt: But the Lightning had not pierced his Skin, where it had Singed him; neither was there any perceivable hurt done to his Lungs.

I do not doubt but the intelligent Reader will find ſeveral Particulars in this Letter, which will confirm the Theory of *Thunder* and *Lightning* already laid down: ſo that I need not ſtand to ſpecify 'em in this place. I ſhall only for a Concluſion, being willing to apply theſe ſurprizing natural Events to the Regulation of our own Lives, and of the Judgment we ought to make of thoſe who ſuffer untimely Deaths by theſe and ſuch like Accidents, make upon what has paſs'd the *three* following Reflections.

1. *Firſt*, That ſince *Thunder* and *Lightning* are the natural Effects of the firing of *nitrous* and *ſulphureous* Matter in the Air, and this *nitrous* and *ſulphureous* Matter is exhal'd out of the Earth in hot Summers in vaſt Quantities, and diſpers'd every where in all the Regions of the Air; where by the Courſe of Nature it muſt fire; and, if it is near the Surface of the Earth, and of a conſiderable Quantity and Conſiſtency, muſt do Miſchief to whatever it meets with; hence 'tis natural to conclude how much they are in the wrong who look upon theſe Kinds of Deaths as extraordinary and immediate Judgments from Heaven for the Wickedneſs of thoſe who ſuffer 'em: For

there

there is nothing in all this which ſuppoſes or implies any immediate Interpoſition of God; every thing paſſes as much within the Sphere of Second Cauſes, and according to the Laws of Nature here, as in a *Fall* from an Houſe, or any other Accident, or in a Fever, or any other Diſtemper: We may therefore as well conclude extraordinary Judgments for extraordinary Crimes in all common Caſes of Mortality, as in the particular Caſe of Death by *Lightning*; and if we do it not in the former, we ought not to do it in the latter Caſe. God Almighty has thought fit to govern the World by thoſe Laws and Rules which he eſtabliſh'd at the firſt Formation of it; he leaves Second Cauſes to have their natural Effects; and therefore it may be ſaid to have been by his *Permiſſion* that any one has ever been ſlain by *Lightning*; but the ſame may be ſaid of any that dies of a Fever, a Conſumption, Old Age, *&c.* here alſo natural Cauſes are *permitted* to have their natural Effects, as well as in the other Caſe; and conſequently God Almighty's Interpoſal is the ſame, and his immediate Judgment equally diſcoverable in both. 'Tis true this way of judging of God's extraordinary Diſpleaſure at ſuch as die by theſe ſurprizing Accidents has been very ancient in the World; and 'tis certain that ſometimes he has taken this Method of

ſhew-

ſhewing his Diſpleaſure at Sin, and of awakening a Lethargic World into a Senſe of Morality and Religion: Thus he *drown'd* the whole Old World; and, which comes nearer our preſent Caſe, conſum'd *Sodom* and *Gomorrah* by *Fire* from Heaven: And theſe Interpoſitions of God, in Vindication of the Honour of his Laws, ſeem to have given occaſion to the falſe Judgments which have been made upon this Subject. But if God Almighty once deſtroy'd ſome Cities by *Fire* from Heaven for their Abominations, it does not therefore follow that whoever dies by *Lightning* dies by the immediate Hand of God, as a Monument of his Vengeance upon ſome notorious Sins he has been guilty of: On the contrary, as *Lightning* and *Thunder* are the natural Effects of Second Cauſes, and as they will be often doing Miſchief to what comes in their way, if their natural Effects are not ſuſpended, and as God Almighty has no where told us that he has laid himſelf under any Obligation to ſuſpend their natural Effects, for the Preſervation of the Lives or Limbs of all Perſons, but ſuch as he is willing to make Monuments of his Vengeance againſt Sin; and as when he has this way ſignally interpos'd he has acquainted the World with it, to prevent them from looking upon what happen'd as a natural Accident; hence it

ſeems to follow that when he does not acquaint us that he is concern'd, then whatever falls out is the mere Effect of natural Cauſes left to themſelves: And hence we are fairly taught to judge, that as we muſt conclude that *Sodom* and *Gomorrah* fell by *Fire* from Heaven by God's immediate Interpoſition, becauſe God himſelf was pleaſed to communicate this Matter to *Lot* and *Abraham*; ſo when we hear of other Accidents of this nature, and are not any way acquainted with the extraordinary Interpoſition of God in their Production, we muſt conclude from his Silence that there was in thoſe Caſes no extraordinary Interpoſition of Providence. *Suppoſe ye that theſe* Galileans *were Sinners above all the* Galileans *becauſe they ſuffer'd ſuch things?* ſays our bleſſed Lord to thoſe who told him *of the* Galileans, *whoſe Blood* Pilate *mingled with their Sacrifices: Or thoſe Eighteen,* ſays he, *on whom the Tower in* Siloam *fell, and ſlew them; think ye that they were Sinners above all Men that dwelt in* Jeruſalem? *I tell you nay.* "Theſe, and "ſuch like Accidents, are not always cer- "tain Signs of God's immediate Judg- "ments upon notorious Sinners, but often "are the mere Effects of natural Cauſes left "to themſelves; and may always be look'd "on as ſuch, if God does not in ſome ex- "traordinary manner manifeſt his Interpo-

"ſition

"ſition in the Caſe. This Conſideration may be of uſe to thoſe who have the Misfortune to loſe Friends or Relations by theſe ſhocking Accidents, to prevent them from being *ſorry as Men without Hope*, as they would be tempted to be, did they believe that Death by *Lightning*, and ſuch like Accidents, is an extraordinary Judgment from God for the Sins of thoſe who ſuffer by it.

2. *Secondly*, As we find from Matter of Fact, that the *ſulphureous* and *nitrous* Matter which occaſion *Lightning* and *Thunder*, are in hot Seaſons drawn up every where into all the Regions of the Air; and tho' they are generally fir'd at a diſtance, and ſpend their miſchievous Force before they reach the Earth, yet too often they fly off amongſt us, and deſtroy every thing they meet with; and as we can never be ſure how ſoon we may be involv'd in a Collection of ſuch Matter, which may hurry us in a Moment into the next World, this ought to be an Argument of irreſiſtible Force to prevail with us to provide againſt a ſudden Death. They who are ſlain by *Lightning* are generally ſuffocated in the leaſt Moment of Time, as the Accounts of theſe Accidents aſſure us upon all Occaſions; ſo that if a *Lord have Mercy upon us* at the laſt would qualify us for a kind Reception in the next

World it cannot be had, there being not the leaſt Time left by theſe Accidents for the leaſt Preparation for a future Eternity; and how ſoon it may be the Fate of any one of us no Mortal can tell; and conſequently every one ought at all Times to be provided againſt it. Death indeed we are liable to be ſtruck with at all Times Ten Thouſand different ways, and ſudden Deaths befall innumerable Perſons from innumerable different Cauſes; and all theſe are ſo many different Arguments to work us into religious and holy Lives: But upon Compariſon I believe it will be found that Death by *Lightning* is as ſudden, if not the ſuddeneſt of any; which therefore, conſidering that we can ſeldom ſay we are ſecure from it, is a Motive of as juſt Force as any whatever to prevail with us to be always upon our Guard. This will take off the ſtrongeſt natural Fear we have for the moſt dreadful *Lightning* which can happen, when we humbly hope, that through the Mercy of God, if it have its utmoſt Effect upon us, it will ſend us in a Moment into *Paradiſe*: And it will be an unſpeakable Conſolation to our Friends to think that we had the Honour of darting up in a *Ray* of *Light*, as *Elijah* did in a *Whirlwind*, into Heaven.

Thirdly,

3. *Thirdly*, and laſtly, As by the Happineſs of our Soil and Situation we of this Iſland are expos'd to as few of theſe Diſorders in Nature as any other Nation under Heaven, and have as little Miſchief done by *Earthquakes*, *Lightning*, and ſuch like Accidents, as any other Country in our own or any other Climate betwixt either *Pole* and the *Line*; this ought (amongſt the many other Bleſſings which are fallen to our Share in a very particular and diſtinguiſhing manner) to teach us to ſet a juſt Value upon this our goodly Heritage, and accordingly to praiſe our God for the *Place* where we have our Being. Many are the Advantages which we of this Iſland have above almoſt any other Nation upon the Face of the Earth: We have all Things furniſh'd us richly to enjoy, either growing at Home amongſt us, or brought to our Doors at ſo eaſy a Rate, that a very moderate Fortune will furniſh us with all the Deſirables of Life: And, what gives all other Bleſſings their true Reliſh, and yet few other Countries in the World can ſo juſtly boaſt of, we have our *Civil* and *Religious Liberties* and *Properties* ſecur'd to us in the moſt uſeful manner by the beſt of Laws, which is the Foundation of our Grandeur at Home, what

what ſeveral Nations wanting are almoſt degenerated into Brutes Abroad, and without which *Paradiſe* it ſelf muſt be a *Wilderneſs*, and *Life* little better than a *Curſe* to any reaſonable and reflecting Man: And to theſe Bleſſings God Almighty could only add this one more, to leave us expos'd to the feweſt unhappy Accidents from *Earthquakes*, *Lightning*, *Hurricanes*, &c. to diſtinguiſh us in a particular manner for his Favourite People among all the Nations of the Earth: Which he has viſibly done; as every one will find if he compares the Accidents upon Record here with what have happen'd within the ſame Compaſs of Time in any other Nation: Well therefore may every one of us ſay with the holy Pſalmiſt, *The Lot is fallen unto me in a fair Ground, yea I have a goodly Heritage*; and accordingly praiſe him from whom we have our *Place* and Being. *Thunder* and *Lightning*, and *Hurricanes*, and ſuch like Diſorders in Nature, we are indeed in ſome meaſure expoſed to; and when we are viſited by them they often leave ſome Marks of their Fury behind them; but theſe have their Advantages both Natural and Moral, for which we ſhould ſcarce chuſe to be abſolutely without 'em; they clear the Air often of ſuch peſtilential Vapors as might otherwiſe lay our Land deſolate, and at the Expence

of

of One or Two Lives ſave thoſe of Hundreds of Thouſands; and by the Deaths of thoſe One or Two they put us in mind how eaſily the Caſe might have been our own then, or may be in a very ſhort Time; and thereby (if we make a right uſe of 'em) engage us to prepare for their Reception: What we have therefore in a more particular manner to praiſe our God for in this Caſe is this, that *We* reap all the Advantages from theſe Shocks of Nature at as little Expence as any other Nation in any Climate under the Sun.

F I N I S.

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